

# Safety and Health Handbook

## Occupational Safety and Health Programs

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OCCUPATIONAL SAFETY AND HEALTH PROGRAMS  
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Space Administration

SAFETY AND HEALTH HANDBOOK  
OCCUPATIONAL SAFETY AND HEALTH PROGRAMS

PREFACE

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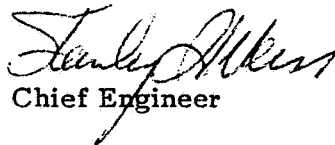
This Handbook provides the requirements for NASA's Occupational Safety and Health Programs as required by Section 19 of the Occupational Safety and Health Act (29 U.S.C. 651 et seq.), Executive Order 12196, and the implementing regulations found in 29 CFR Part 1960.

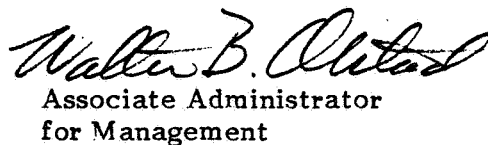
NASA's policy for safety and health is published in the Management Directives System, subject-classification numbered series 8710, and program details are in series 1700 for Safety and 1800 for Occupational Health.

Comments and questions concerning the contents of this Handbook should be addressed to the Director of Safety (Code D) or the Director, NASA Occupational Health Office (Code NPG) Washington, D.C. 20546.

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Chief Engineer

  
Associate Administrator  
for Management

DISTRIBUTION:  
SDL 1 (S1Q)



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## CHAPTER 1: GENERAL

### 1.1 PURPOSE AND SCOPE

The need for this issuance is based, in part, on the following:

1. The Occupational Safety and Health Act (the Act) Public Law 91-596, 84 Statute 1590 became effective April 28, 1971. The Act authorizes the development and enforcement of standards to ensure safe and healthful working conditions for employees in the private sector and, also, contains provisions applying to Federal agencies and their employees. Section 19 of the Act requires Federal agencies to have a comprehensive Occupational Safety and Health Program consistent with the standards authorized by Section 6 of the Act. The head of each agency is required to take other specific actions after consultation with representatives of employees (labor organizations, where applicable).
2. Executive Order (E.O.) 12196 was promulgated on February 26, 1980. It directs Federal agencies to implement effective Occupational Safety and Health Programs, provides for the evaluation of Federal agency programs by the Department of Labor (DOL), and provides for the transmittal of these evaluations to the President. It also authorizes DOL to issue program elements to assist Federal agencies in establishing and operating their programs with sufficient flexibility consistent with their respective mission, size, and organization.
3. Basic elements for Federal employee occupational safety and health programs were published in the Federal Register on October 21, 1980 (29 CFR Part 1960). Federal agencies are required to observe these program elements.
4. Overall policy and responsibility for safety and health within NASA are described in the NMI 8710.2, Safety and Health Programs. The purpose of this volume is to provide details necessary to implement the regulations found in 29 CFR Part 1960 dealing with occupational safety and health.
5. Four conditions may exist where field installations may not be in compliance with provisions of this policy or standards adopted herein. Those conditions and the actions necessary to sustain them are as follows:
  - a. Field installations' nonconformance with specific safety or occupational health policy which is developed solely by NASA may be approved on review by the Director of Safety or the Director, NASA Occupational Health Office, respectively. This approval will allow flexibility by field installations who intend to accomplish requirements through different means.
  - b. Nonconformance with specific policy not within the discretion of NASA, for example, different program elements from those

required by 29 CFR Part 1960 or Executive Order 12196 must be submitted by field installations to the appropriate Headquarters official, i.e., the Director of Safety or the Director, NASA Occupational Health Office. Review of such requests will ensue and, if concurred in, an alternate policy justification for the entire agency will be transmitted to the Secretary of Labor or other approving authority.

- c. Nonconformance with existing standards where the intention is to correct the condition or procedure requires an abatement plan, provided the situation requires more than 30 days to abate. See Chapter 4 for requirements for development of abatement plans.
- d. Nonconformance with existing standards where the intention is not to achieve compliance requires the development and approval of an alternate/supplementary standard or request for waiver. See Chapter 3 for further details.

## 1.2 DEFINITIONS

The following definitions are used in this volume:

- 1. "Act" means the Occupational Safety and Health Act of 1970 (29 U.S.C. 651 et seq.).
- 2. "Designated Agency Safety and Health Official" means the Associate Administrator for Management.
- 3. OSHA Standards are those standards issued by the Department of Labor's Occupational Safety and Health Administration (OSHA) pursuant to Section 6 of the Act.
- 4. NASA Occupational Safety and Health (NASA OSH) Standards are standards adopted by NASA which prescribe conditions and methods necessary to provide a safe and healthful working environment. These standards are either developed internally by NASA or are adopted standards from other sources.
- 5. NASA employees are any persons other than detailed members of the Armed Forces, suffered, permitted, or required to work by NASA (except contractor employees).
- 6. "Consultation with representatives of the employees thereof" shall include such consultation, conference, or negotiation with representatives of agency employees as is consistent with the Federal Service Labor Management Relations Statute (5 U.S.C. 71 et seq.) or collective bargaining or other labor-management arrangements. As used in this part, the term "representative of employees" shall be interpreted with due regard for any obligation imposed by the aforementioned statute and any other labor-management arrangement that may cover the employees involved.

7. "Representative of management" means a supervisor or management official as defined in the applicable labor-management relations program covering the affected employees.
8. "Recordable occupational injuries or illnesses" means any occupational injuries or illnesses which result in:
  - a. Occupation-related deaths regardless of the time between injury and death, or the length of illness.
  - b. Nonfatal occupational illnesses.
  - c. Nonfatal occupational injuries which involve one or more of the following: days away from work or days of restricted work activity; loss of consciousness; restriction of work or motion; transfer to another job; or medical treatment.
9. "Medical treatment" includes treatment administered by a physician, or by licensed or registered professional personnel under standing orders of a physician, for an occupational injury or illness which does not result in days away from work or days of restricted work activity. "Medical treatment" does not include first aid treatment, even though provided by a physician or licensed or registered professional personnel.
10. "Inspection" means a comprehensive survey of all or part of a workplace by qualified employees in order to detect safety and/or health hazards. Inspections are normally performed during the regular work hours of the agency, except as special circumstances may require. Inspections do not include routine workplace surveillance of occupational health conditions.
11. "Employment accident" is a mishap occurring as a result of work performance or exposure.
12. "Lost workday cases" means injuries and illnesses which involve days away from work and/or days of restricted work activity. "Lost workdays—away from work" means the number of workdays (consecutive or not) during which the employee would have worked but could not because of an occupational injury or illness. "Lost workdays—restricted work activity" means the number of workdays (consecutive or not) during which, because of injury or illness:
  - a. The employee was assigned to another job on a temporary basis;
  - b. The employee worked at a permanently assigned job less than full time; or
  - c. The employee worked at a permanently assigned job but could not perform all duties normally connected with the job.
13. "Incidence rates" means the number of injuries and illnesses, or lost workdays, per 100 full-time workers. Rates are calculated as:

$$\frac{N \times 200,000}{EH}$$

where:

N equals number of injuries and illnesses, or number of lost workdays.

EH equals total hours worked by all employees during a defined period, e.g., month, quarter, or calendar year.

200,000 equals base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year).

14. "Safety and Health Inspector" means a safety and/or occupational health specialist or other trained person authorized to carry out inspections and having the equipment and competence to recognize safety and/or health hazards in the workplace.
15. DOL is the U.S. Department of Labor
16. OWCP is the Office of Workers' Compensation Programs, Department of Labor.
17. OSHA is the Occupational Safety and Health Administration, Department of Labor.
18. NIOSH is the National Institute for Occupational Safety and Health, Department of Health and Human Services.
19. Federal OSHA official is an investigator, evaluator, or compliance officer employed by, assigned to, or under contract to OSHA.
20. State OSHA official is an investigator or compliance officer employed by a state which has an OSHA-approved occupational safety and health plan.
21. "Safety Specialist" means a person or persons meeting the Office of Personnel Management standards for such occupations, which include but are not limited to:

Safety Technician GS-019  
 Safety Manager/Specialist GS-018  
 Safety Engineer GS-803  
 Fire Protection Engineer GS-804  
 Fire Protection Specialist/Marshal GS-081  
 Air Safety Investigation Officer GS-1815  
 Aviation Safety Specialist GS-1825  
 Highway Safety Manager GS-2125

or equally qualified military, agency or non-government personnel.

22. "Health Specialist" means a person or persons meeting the Office of Personnel Management standards for such occupations, which include but are not limited to :

Occupational Medicine Physician GS-602  
Occupational Health Nurse GS-610  
Health Technician GS-645  
Industrial Hygienist GS-690  
Environmental Health Technician GS-699  
Health Physicist GS-1306  
Physical Science Technician GS-1311  
Chemist GS-1320

or equally qualified military, agency or non-government personnel.

23. NASA has determined that a person or persons meeting the Office of Personnel Management standards for the following occupations are equally qualified Health Specialists:

General Health Scientist GS-601  
Physician's Assistant GS-603  
Sanitarian GS-688

24. Contracting Officer is a person who is a designated contracting officer, and who performs administrative functions listed in the NASA Procurement Regulations.
25. NASA contractor is a non-Federal employer engaged in performance of a NASA contract, whether as prime contractor or subcontractor.
26. NASA contractor workplace is any on-site workplace where work currently is being, or will be performed by contractor employees under a NASA contract, including a reasonable access route to and from the workplace. "Contractor workplace" does not include any area, structure or machine with which the contractor employee is not required or reasonably expected to have contact, nor does it include any working condition for which OSHA jurisdiction has been preempted pursuant to Section 4(b)(1) of the Act.
27. "Imminent danger" means conditions or practices in any NASA or contractor workplace where a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of such danger can be eliminated through normal procedures. These will be identified by Risk Assessment Code (RAC) 1.
28. "Workplace" means a physical location where the agency's work or operations are performed.
29. "Reprisal" as used in this part means any act of restraint, interference, coercion, or discrimination against any employee for exercising his or her rights under Executive Order 12196, 29 CFR Part 1960, or for participating in the agency's safety and health programs.

30. "Official-in-Charge of the establishment" as used in Chapter 4 means the building manager, facility operations manager (FOM) or other official who normally initiates requests for repairs or maintenance for a particular building or facility.

## CHAPTER 2: ADMINISTRATION

### 2.1 MANAGEMENT RESPONSIBILITIES

The Associate Administrator for Management is the designated safety and health official for the agency and as such provides resources, guidance, and direction for implementing NASA safety and health policies, standards, and procedures. Detailed management responsibilities for this official, other senior Headquarters and field installation officials and safety and health professionals in the agency are contained in the NASA policy on safety and health.

### 2.2 SUPERVISORS' RESPONSIBILITIES

1. Ensure that employees are informed of NASA safety and health programs and of the protection afforded employees through these programs.
2. Inform employees of the location of the nearest medical treatment facility, procedures for obtaining treatment, and methods for reporting occupational injuries or illnesses.
3. Instruct employees to report hazardous conditions to their supervisors.
4. Take appropriate action to protect employees in imminent danger situations.
5. Furnish a safe and healthful place of employment and ensure that identified hazards are eliminated or controlled.
6. Inform employees of specific hazards associated with their workplace and duties, ensure the use of appropriate personal protective equipment, and train employees in a manner which will ensure their safety and health.
7. Ensure that employees are informed of their specific responsibilities and rights under the Act, E.O. 12196, and 29 CFR Part 1960 and how they may participate in the program.
8. Cooperate with and assist safety and health personnel while they are performing their duties as specified in the OSH program.

### 2.3 DISSEMINATION OF PROGRAM INFORMATION

1. Employees should be made aware of the installation's safety and health programs. Copies of the Act, Executive Order 12196, 29 CFR Part 1960, details of NASA's Occupational Safety and Health Programs, and applicable safety and health standards shall be made available, upon request, to employees or employee representatives for review.

2. A copy of field installation's written safety and health program information shall be made available to each supervisor, Safety and Health Committee member, and employee representatives.
3. The installation's safety and health official(s) shall assure that a poster is conspicuously posted in each major facility, informing employees of the provisions of the Act, Executive Order 12196, and NASA's Occupational Safety and Health Programs. Individual field installations shall amend such posters to include the following:
  - a. Details of the installation's procedure for responding to employee reports of potential unsafe or unhealthful conditions.
  - b. Details of NASA's procedure for filing allegations of discrimination or reprisal for participating in the safety or health program or for reporting potential unsafe or unhealthful conditions.
  - c. Locations where employees may obtain information regarding the installation's safety and health programs.
  - d. Relevant information about the installation's Safety and Health Committee.
4. An annual summary of occupational injuries and illnesses shall be posted no later than 45 calendar days after the close of the calendar year. Dissemination of this information to employees is encouraged.

#### 2.4 FINANCIAL MANAGEMENT

1. The intent of this paragraph is to: (1) Ensure that an adequate level of funding is available to correct recognized safety and health violations, (2) Develop methods that will facilitate the flow of useful information between the center safety, health, and financial management organizations and Headquarters in order to augment current efforts to identify and correct hazardous conditions, (3) Develop procedures that will enable Headquarters to assist the centers in complying with specific requirements of OMB Circular A-11, the NASA Budget Administration Manual (NHB 7400.1), the Occupational Safety and Health Act, and NASA's Occupational Safety and Health Programs.
2. The Office of Management and Budget in Circular No. A-11 has directed that the budgets of all agencies reflect their "...goals and responsibilities to provide safe and healthful work places...in accordance with the provisions of Executive Order No. 11807 (now E.O. 12196) ...." That Executive Order and Subpart B of the Basic Program Elements for Federal Employee Occupational Safety and Health Programs (29 CFR 1960.7) mandate that the Administrator of NASA ensures that the Agency budget submission includes appropriate financial and other resources to effectively implement and administer NASA's Occupational Safety and Health Programs. It states specifically that: "...appropriate resources for an agency's occupational safety and health program shall include...sufficient personnel...abatement of unsafe or unhealthful

working conditions...safety and health equipment...contracts to identify or evaluate unsafe working conditions...promotional costs...technical information...medical surveillance programs...safety and health training."

3. Compliance with many of the financial requirements can best be achieved at the center level through a cooperative effort between the safety/health organizations and the financial management organizations. Specific needs relating to their operational budget will have to be identified by the Safety and Health Office(s) and be conveyed in a timely and effective manner to ensure inclusion in the annual budget submission. Existing mechanisms for accomplishing this, where proven effective, should be retained. If no present mechanism exists or if existing efforts have proven ineffective, suitable new modes of conduct will have to be implemented. The role of NASA Headquarters is to assist the centers in identifying potential problem areas and to work with the safety/health organizations to develop solutions which will facilitate the accomplishment of the goals.
4. Prior to the annual budget call, the installation safety and health official(s) will be responsible for compiling the dollar estimates for the following categories, where appropriate:
  - a. Personnel
    - (1) Safety.
    - (2) Health.
  - b. Training, including travel funds necessary for training.
  - c. Sampling, testing, diagnostic and analytical tools and equipment, as well as laboratory analyses.
  - d. Program promotional costs such as publications, posters or films.
  - e. Technical information, documents, books, standards, codes, periodicals, and publications.
  - f. Firefighting equipment, including vehicles.
  - g. Occupational health surveillance programs for employees.
  - h. Contracts to identify or evaluate unsafe or unhealthful working conditions.
5. In those instances where the Safety and Health Office(s) does not have specific budget authority, it will be necessary to work with those operational entities that formulate the budget estimates in order to compile these data.

6. The identification and abatement of unsafe and unhealthful conditions are the primary responsibility of NASA's Safety and Health Office(s); however, since inherent financial considerations often mandate that this goal be accomplished over several budget cycles, this aspect of financial management responsibility must receive added emphasis.
7. The centerpiece of this effort will be the safety and health inspections required by Subpart D, 29 CFR Part 1960, coupled with action in response to safety complaints and contractor initiated reports of deficiencies. These are intended to identify conditions requiring corrective action. Cost estimates are required for all projects. In addition, the appropriate fund source type and a justification for action must be given.
8. To ensure all noted deficiencies are corrected, a tracking system will be put into effect. This system will be dependent upon the time/cost required to complete the work.
9. For those deficiencies that can be rectified within 30 days, written notification by the Building Manager or Facility Operations Manager indicating that the noted condition has been corrected and its cost, coupled with verification by the Safety and Health Office(s), is required.
10. For those deficiencies that cannot be corrected within 30 days, an abatement plan, as required by 29 CFR 1960.30, must be developed. The procedures are described in the instructions issued with the NASA Safety and Health Hazard Abatement Form (NF 1584).
11. The effective implementation of this program necessitates that an individual within the Safety/Health Office(s) be designated as the financial coordinator as a collateral duty function. His/her duties will be to act as a liaison between the Center financial management organization and Safety/Health Office(s) as well as any other organizational entities that are empowered with budgetary authority. The responsibilities will also include ensuring that budget requests are submitted for the annual budget call and that budget summaries and certain abatement plans (see paragraph 4.7) are transmitted to the Director of Safety or the Director, Occupational Health Office, whichever is appropriate. These responsibilities imply that the coordinator will become familiar with the Center budget process through an adequate level of training and instruction.

## 2.5 HEADQUARTERS COORDINATION

The Safety Division or the NASA Occupational Health Office will be responsible for reconciling conflicting requirements, helping to assure an equitable distribution of financial resources in the areas of safety and health, and establishing priorities for safety/health projects where limited funds necessitate the postponement of abatement plans.

## CHAPTER 3: STANDARDS

### 3.1 COMPLIANCE WITH OSHA STANDARDS

1. NASA will comply with safety and health standards promulgated under Section 6 of the Act, except where alternate standards have been approved by the Secretary of Labor and NASA Headquarters. When field installations intend to apply more stringent standards (e.g., lower permissible exposure limits), the safety or health official will notify the Director of Safety or the Director, Occupational Health Office, whichever is appropriate, in writing of the details of such standard(s) and the associated operation or procedure.
2. Approval for deviations from standards (NASA or OSHA) may be obtained as follows:
  - a. Submittal of proposed alternate or supplementary standards to the Director of Safety or the Director, Occupational Health Office, whichever is appropriate, for coordination and approval by the Secretary of Labor. This approach will be used when there are major deviations, and they will normally be adopted as NASA-wide standards. (Examples include the pressure vessel standards and proposed NASA crane safety standard.)
  - b. Requests for waivers will be utilized to obtain permission to deviate from a specific portion/paragraph of an existing standard and will require approval of the Director of Safety or the Director, NASA Occupational Health Office, whichever is appropriate. Request for waivers will contain the same information specified in paragraph 3.2 and will require approximately 45 days for review and approval. Notice to affected employees shall be provided prior to the request for waiver.

### 3.2 ALTERNATE STANDARDS

1. Field installations may apply alternate safety and health standards, either NASA safety and health standards or standards limited to their own installation, provided such standards are approved. Alternate standards require approval by the Secretary of Labor. The Director of Safety or the Director, Occupational Health Office, whichever is appropriate, will serve as the Headquarters coordinator for review of alternate standards and will prepare necessary material for interagency review with the Department of Labor. Requests for alternate standards will be coordinated with employees or their representatives and will not be approved unless it provides equivalent or greater protection for affected employees.
2. In developing and submitting alternate standards, field installations shall provide the following information:

- a. A statement of why the field installation cannot comply with the OSHA standard or wants to adopt an alternate standard.
- b. The proposed alternate standard.
- c. An explanation of how the alternate standard provides equivalent or greater protection for the affected employees.
- d. A description of interim protective measures employed pending approval of the standard.
- e. A written summary of comments, if any, from interested employees, their representatives or the installation's Safety and Health Committee.

### 3.3 SUPPLEMENTARY STANDARDS

1. Where applicable, emergency temporary standards issued pursuant to Section 6 of the Act will be complied with.
2. Where no OSHA standard exists, field installations may propose their own safety or health standards. The approval process within NASA is identical to that described in paragraph 3.1. When a standard will be applicable NASA-wide, the standard will be issued as a NASA safety or health standard. The field installation proposing the standard will act as the lead in developing the standard. The Director Safety or the Director, Occupational Health Office, whichever is appropriate, will coordinate agencywide and interagency reviews and approval, and will publish the standard in its final form.

### 3.4 APPLICABILITY OF OTHER STANDARDS

1. When NASA employees are detailed to other Federal installations or facilities, the standards of the host agency will be applicable.
2. NASA employees working in government-owned contractor operated (GOCO) facilities will be subject to those standards issued pursuant to Section 6 of the Act.

### 3.5 FEDERAL STANDARDS ADOPTED

1. In addition to safety and health standards promulgated under Section 6 of the Act, NASA will utilize and comply with the following Federal standards and regulations inasmuch as they significantly impact operational safety and/or health:
  - a. Federal Aviation Administration (FAA) standards applicable to public aircraft. NASA aircraft are operated as public aircraft.
  - b. Department of Transportation (DOT) standards applicable to shipping and handling of hazardous materials.

- c. Environmental Protection Agency (EPA) standards applicable to recovery, control, and disposal of hazardous wastes.
  - d. Department of Defense (DOD) Ammunition and Explosives Safety Standards (DOD 5154.4S) and Department of Air Force explosive safety operating procedures, AF Regulation 127-100.
  - e. Nuclear Regulatory Commission (NRC) standards for handling radioactive sources.
2. The following consensus standards are adopted:
- a. National Fire Protection Association (NFPA), National Fire Codes (NFC), Volumes 1-16, latest edition. (Standards only. Use of NFPA recommended practices contained in the NFC is encouraged but is not mandatory.)
  - b. Uniform Building Code, latest edition.
  - c. American National Standard Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks, ANSI A17.1, as amended.

### 3.6 NASA ORIGINATED STANDARDS

- 1. Unique NASA operations, materials, facilities, equipment, procedures, and practices may require establishment of supplementary safety and health standards as outlined in paragraph 3.3. When such a case exists, standards will be issued when such action will:
  - a. Eliminate repetitive decision making and duplication of design efforts or research in more than one installation or contractor's plant.
  - b. Prevent and control, as far as possible, accidental property damage and occupational injuries or illnesses to personnel and the public.
  - c. Provide for uniformity of basic rules relative to safety and health conservation throughout NASA, NASA contractor operated facilities and contractor facilities.
- 2. Any field installation or Headquarters office may propose a safety or health standard for NASA-wide application. The proposed standard will be submitted to the Director of Safety or the Director, Occupational Health Office, as appropriate for staffing, coordination and approval.
- 3. NASA safety and health standards remain in effect until cancelled. Current safety and health standards are listed in paragraph 3.10.
- 4. Employees or their representatives will be afforded the opportunity to review and comment on proposed NASA safety and health standards. Such comments shall accompany the official field installation comments on proposed standards.

### 3.7 STANDARDS' IDENTIFICATION

1. Each NASA safety and health standard will be identified by a title and a unique prefix and number comprised of:
  - a. The letters "NSS" for NASA Safety Standard, or "NHS" for NASA Health Standard, followed by a slant (/);
  - b. The four-digit number "1740" for safety standards and "1845" for health standards, suffixed in consecutive order of issue by a number ".1," ".2," etc.,; and,
  - c. An additional suffix of "A," "B," etc., as necessary to identify revisions.

### 3.8 NASA PROCUREMENTS

1. When it is determined by the program official approving the procurement request, in conjunction with the installation safety and/or health office(s), that NASA safety and/or health standards are required in statements of work, solicitations, and contracts, such standards will be identified and cited as follows:
  - a. The number and title of each specific NASA safety and/or health standard will be referenced. However, references to non-NASA originated safety or health standards adopted by NASA will include only the originating organization's number and specific title as shown on the promulgating NASA standard.
  - b. A statement as to the availability of copies of each safety and health standard cited, i.e., where the prospective bidder or contractor may obtain copies of the NASA originated or non-NASA originated safety or health standard cited. Such statements will be taken from the promulgating NASA safety or health standard.
  - c. The extent of applicability will be described in detail.
  - d. Prime contractors will be required to impose applicable provisions on subcontractors.

### 3.9 DISTRIBUTION AND INTERNAL/EXTERNAL AVAILABILITY OF STANDARDS

1. NASA safety standards and NASA health standards will be issued in necessary quantities to each installation safety or health office for appropriate internal distribution and use, including use in requests for proposals and contracts.

2. Copies of non-NASA originated standards will not be available in bulk quantity; a minimum quantity of these standards will be placed in each installation, including the installation library, for internal use only. Each NASA safety and health standard promulgating the adoption of a non-NASA originated standard will include a statement where copies of such standards may be obtained and, if applicable, the price.
3. Availability to the public will be as follows:
  - a. Copies of NASA originated safety and health standards will be available as each installation for the public in accordance with the provisions, including cost, of NMI 1382.2.
  - b. Copies of non-NASA originated safety or health standards adopted by NASA will be obtained by the requestor (including prospective contractors and NASA contractors) directly from the originating non-NASA organization.

### 3.10 NASA ORIGINATED SAFETY AND HEALTH STANDARDS

#### 1. Safety Standards

	<u>Title</u>	<u>Number</u>	<u>Issuance Date</u>
a.	NASA Aerospace Pressure Vessel Safety Standard	NSS/HP-1740.1	Feb. 22, 1974
b.	NASA Medium Weight Pressure Vessel Safety Standard	NSS/HP-1740.4	Aug. 13, 1976

#### 2. Health Standards

a.	Guard and Fireman Physical Examination Requirements (limited to KSC and GSFC (Wallops))	NHS/OM-1845.1	Feb. 22, 1980
b.	Exposure to Dichloromonofluoroethane (Freon 21)	NHS/IH-1845.1	Mar. 3, 1981

## CHAPTER 4: INSPECTION AND ABATEMENT

### 4.1 FREQUENCY OF INSPECTION

1. Field installations will establish a formal schedule of inspections for all operations/facilities. All active areas and operations of each workplace shall be inspected at least annually. More frequent inspections shall be conducted in workplaces where there is an increased risk of accident, injury or illness.
2. Unannounced inspections may be accomplished providing the safety and health of personnel involved are not jeopardized. Followup visits shall be made to ensure the abatement of hazardous conditions.
3. Special inspections may be conducted on request of safety and health committees, employees or their representatives, or upon notice of an unsafe or unhealthful condition.
4. Any facility, structure, operation, vehicle, or equipment which is in an inactive status generally need not be inspected; however, prior to reactivation of such facility, structure, vehicle, operation, or equipment shall undergo a thorough inspection to identify potential hazards.
5. Generally, occupational health personnel will conduct health inspections and safety personnel will conduct safety inspections. However, it is expected that inspectors will note hazards outside their area of jurisdiction. Such cases should be referred to the appropriate office for evaluation and further action.
6. Field installations will maintain documentation of inspections and the results thereof.

### 4.2 QUALIFICATIONS OF INSPECTORS

1. Inspections shall be conducted by qualified inspectors.
2. Safety and health specialists, as defined in paragraph 1.21-23, meet the qualifications for safety or health inspectors. The installation safety and/or health official(s) shall be responsible for determination and certification of equally qualified personnel.
3. Inspectors shall have sufficient documented training and experience in safety and health (as appropriate) necessary for the recognition, evaluation and abatement of hazards unique to the particular workplace.
4. Inspection personnel must be provided the equipment necessary to conduct a thorough inspection of the workplace involved.

### 4.3 CONDUCT OF INSPECTIONS

#### 1. Preparation

a. Prior to commencement of an inspection, the safety or health inspector shall have access to all relevant safety and health information pertinent to the workplace to be inspected, injury and illness records, previous inspection reports, and reports of unsafe or unhealthful working conditions.

b. The safety or health inspector shall determine in advance, where possible, the actual work procedures and conditions to be inspected.

2. Safety and health inspectors are authorized to enter without delay, and at reasonable times, all workplaces or environments where work is performed. Such inspections shall not be conducted if it would jeopardize the safety and health of the inspector or the employees in the workplace. Access to security controlled areas will be coordinated with the installation Security Officer.

3. Safety and health inspectors are authorized and encouraged to question employees and supervisors in the workplace to assure a comprehensive inspection.

4. If the inspector believes personal protective equipment is necessary during the inspection, all participants in the inspection shall be provided appropriate equipment.

5. Employee representatives will be afforded an opportunity to accompany inspectors.

6. Whenever and as soon as it is concluded on the basis of an inspection that a danger exists which could reasonably be expected to cause death or serious physical harm, the inspector shall immediately inform the affected employees and the official-in-charge of the workplace of the danger. The official-in-charge of the workplace, or a person empowered to act for that official, shall undertake immediate abatement or cease operations and withdraw exposed personnel who are not necessary for abatement of the dangerous conditions. In the event the official-in-charge of the workplace needs assistance to undertake full abatement, that official shall promptly contact the responsible installation officials, who shall assist the abatement effort. Safety and health committees and representatives of the employees shall be informed of all relevant actions.

7. At the conclusion of an inspection, the safety or health inspector(s) shall confer with the official-in-charge of the workplace, or that official's representative, and with an appropriate representative of the employees of the establishment and informally advise them of any apparent unsafe or unhealthful working conditions disclosed by the inspection. During any such conference, the Official-in-Charge of the workplace and the

employee representative shall be afforded an opportunity to bring to the attention of the safety or health inspector(s) any pertinent information regarding conditions in the workplace.

#### 4.4 WRITTEN REPORTS OF UNSAFE OR UNHEALTHFUL CONDITIONS

The inspector shall, in writing, describe with particularity the procedures followed in the inspection and the findings which form the basis for the issuance of any Notice of Unsafe or Unhealthful Condition (NF 1390). The following is NASA's classification system for identifying hazards:

1. Risk Assessment is the potential severity of outcome from a hazard (similar to the OSHA classification system), and a determination of potential probability of that hazard contributing to a mishap. This system provides a more discriminating methodology for prioritizing hazards for correction.
2. Severity is an assessment of the worst potential consequence, defined by degree of injury, illness, or property damage which could occur. Severity classification will be identified as follows:
  - a. Class I - Catastrophic—may cause death.
  - b. Class II - Critical—may cause severe injury, severe occupational illness, or major property damage (greater than \$25,000).
  - c. Class III - Marginal—may cause minor occupational injury or illness or property damage (less than \$25,000).
  - d. Class IV - Negligible—probably would not affect personnel safety or health but is a violation of specific criteria.
3. Probability is the likelihood that an identified hazard will result in a mishap, based on an assessment of such factors as location, exposure in terms of cycles or hours of operation, and affected population. Probability will be estimated as follows:
  - a. Estimate A - Likely to occur immediately.
  - b. Estimate B - Probably will occur in time.
  - c. Estimate C - May occur in time.
  - d. Estimate D - Unlikely to occur.
4. Risk Assessment Code (RAC) means a numerical expression of risk determined by an evaluation of both the potential severity of a condition and the probability of its occurrence as indicated in Figure 1.

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<u>Probability Estimate</u>					
		A	B	C	D
<u>Severity</u>	I	1	1	2	3
<u>Class</u>	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	6

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Figure 1

#### 4.5 NOTICE OF UNSAFE OR UNHEALTHFUL CONDITION

1. Notice of Unsafe or Unhealthful Condition, (NF 1390) hereinafter referred to as the notice, (See Appendix A for sample), shall be issued not later than 15 days after completion of the inspection for safety violations or not later than 30 days for health violations. If the notice cannot be issued within this prescribed time period, reasons for the delay must be documented. The hazard will be posted if deemed necessary by the local safety and/or health official(s).
2. The notice shall indicate the risk assessment code for the condition described in accordance with paragraph 4.4.
3. The notice shall be sent to the Official-in-Charge of the workplace (e.g., foreman, supervisor, building manager, facility operations manager (FOM)) for correction (and posting if directed by the safety or health office). Local safety and health office(s) will establish closed-loop procedures to assure necessary followup and correction.
4. A copy of the notice will be filed and retained for a period of 5 years after abatement at the establishment, and made available to OSHA or NIOSH officials upon request.

#### 4.6 EMPLOYEE REPORTS OF UNSAFE OR UNHEALTHFUL CONDITIONS

1. Employees are encouraged to report suspected unsafe or unhealthful conditions to the installation safety and/or health official(s) concurrent with notification of their supervisor.

2. All written reports and imminent danger (RAC 1) oral reports of unsafe or unhealthful conditions will be recorded as received by the installation safety and/or health official(s) and a file maintained as to the disposition. The file shall contain at least the following information:
  - a. Date and time received.
  - b. File number assigned.
  - c. Location of condition.
  - d. Description of condition reported.
  - e. Risk assessment code for the condition (safety hazards only).
  - f. Action taken.
3. Upon request of the employee, his or her name shall not be disclosed to other than the safety and/or health official(s) in connection with the report of a suspected unsafe or unhealthful condition.

#### 4.7 ABATEMENT OF UNSAFE OR UNHEALTHFUL CONDITIONS

1. In response to reports of suspected unsafe or unhealthful conditions, installation safety and/or health official(s) as appropriate shall conduct inspections as soon as possible but no later than indicated in the following time frames:
  - a. For imminent danger conditions (Risk Assessment Code 1)—24 hours.
  - b. For serious conditions (Risk Assessment Code 2)—3 working days.
  - c. Less than serious conditions (Risk Assessment Codes 3-6)—20 working days.
2. Where unsafe or unhealthful conditions are abated immediately upon discovery, the notice shall be noted to that affect and be filed and maintained in accordance with paragraph 4.5.
3. Where conditions will be abated within 30 calendar days, the notice will so indicate.
4. Where conditions will require more than 30 calendar days to abate, the official-in-charge of the establishment shall promptly prepare an abatement plan with the appropriate participation of the establishment's safety and/or health official(s). The NASA Safety and Health Hazard Abatement Form (NF 1584) may be used by field installations for this purpose. Such plan shall contain an explanation of the circumstances of the delay in abatement, a proposed timetable for the abatement, and a summary of steps being taken in the interim to protect employees from being adversely exposed to the unsafe or unhealthful working condition. A copy of the plan shall be sent to the installation Safety and Health Committee and to representatives of the employees. Any changes in an abatement plan will require the preparation of a new plan in accordance with the provisions of this paragraph. A copy of each abatement plan will be maintained by each field installation Safety Office or

Occupational Health Office, whichever is appropriate, for review during program evaluations.

5. When a hazard cannot be abated with the authority and resources of the official-in-charge of the establishment, that official shall request assistance from appropriate higher authority. The local safety/health official, any established committee and/or employee representatives, and all personnel subject to the hazard shall be advised of this action and of interim protective measures in effect and shall be kept informed of subsequent progress on the abatement plan. The NASA Safety and Health Hazard Abatement Form (NF 1584) will be used for all hazards requiring resource assistance from Headquarters, and a copy will be forwarded to the Director of Safety or the Director, Occupational Health Office, whichever is appropriate, (see Appendix B for sample).
6. When a hazard in leased space cannot be abated without assistance of the General Services Administration (GSA) or other lessor Federal agency, the installation shall notify such agency, in writing, of the condition and request assistance in securing prompt abatement.

#### 4.8 ACCESS FOR OSHA AND NIOSH REPRESENTATIVES

Official representatives of OSHA and NIOSH are authorized to enter NASA workplaces for purposes of inspection and/or evaluation of conditions therein. Access to security controlled areas will be coordinated with the installation Security Officer. Such representatives shall be required to present appropriate identification, receive necessary security clearance, and be escorted during their visits. OSHA and NIOSH representatives shall, upon request, be provided available safety and health information on the work sites to be visited. Upon request they should also be provided photographic support, if available. Arrangements shall be made for such officials to interview, and/or be accompanied by, employees or representatives of employees during their visit. Within 10 working days following written notification of findings of an inspection by OSHA or an evaluation by NIOSH, field installations will provide a summary of any findings and corrective action necessary to the Director of Safety and the Director, Occupational Health Office.

#### 4.9 PRODUCT SAFETY

1. Field installations will meet the requirements of 29 CFR 1960.34(b) for product safety. Special emphasis will be given to locally designed/fabricated items.
2. Supplies, equipment, services, and material which are procured by NASA directly from vendors are required to meet applicable Federal safety and health laws and regulations.
3. To ensure such compliance, installations shall require vendors to:
  - a. Provide material safety data sheets (MSDS) for hazardous materials.

- b. Meet requirements for system safety as outlined in the NASA Safety Manual for major hardware and software acquisitions.
  - c. Review procurements to ensure product compliance with safety and health provisions of the NASA Procurement Regulations.
- 4. MSDS for GSA and Defense Logistics Agency (DLA) procured items will be distributed through the NASA Occupational Health Office.
  - 5. Field installations will make use of the Government Industry Data Exchange Program (GIDEP) to identify defective products or materials which may require recall. See NMI 5310.2 for details of participation in the GIDEP program.

#### 4.10 ACCIDENT INVESTIGATION

Details on accident investigation are found in the Basic Safety Manual, NHB 1700.1(V1).

## CHAPTER 5: COUNCILS AND COMMITTEES

### 5.1 GENERAL

Under provisions of the Basic Program Elements for Federal Employee Occupational Safety and Health Programs (29 CFR Part 1960), agencies are given certain options regarding the use of safety and health committees. NASA has chosen not to implement committees certifiable under these regulations; however, NASA will continue to require the basic safety and health committee concept for installations as outlined in paragraph 5.2.

### 5.2 INSTALLATION SAFETY AND HEALTH COMMITTEE

This committee is to be established at each installation. The Center Director or a designee will be the chairperson. Meetings will be scheduled at least semiannually and more often where conditions indicate a need. The purpose of this committee is to provide a forum for meaningful discussion of, and a channel for input to, management's decisions relative to occupational safety and health matters. For these reasons, membership should be broad-based and will include representatives of both management and employees. Safety and health, as well as other technical personnel, should be either full members or advisors to the committee and should attend meetings. Agendas shall be prepared in advance and minutes kept and distributed to participants. Each committee recommendation shall receive a formal response from management as to the disposition of the recommendations and be incorporated in the minutes of subsequent meetings. Copies of minutes shall be routinely forwarded to the Director of Safety and the Director, NASA Occupational Health Office.

### 5.3 SUBORDINATE SAFETY AND HEALTH COMMITTEES

Special safety and health committees may be formed on an ad hoc or continuing basis to assist the installation safety and health officials in dealing with particular programs, projects, geographical areas, or special operations. Committee members chosen for this assignment must receive safety or health training as required. Field installations are also encouraged to form foreman and employee-level safety committees to assist in the implementation of the Safety and Health Programs.

### 5.4 FIELD FEDERAL SAFETY AND HEALTH COUNCILS

Field Federal Safety and Health Councils are chartered by the Secretary of Labor and are located throughout the nation. They encompass all Federal agencies in a particular geographic locale. The basic objective of field councils is to facilitate the exchange of ideas and information to assist Federal agencies in reducing the incidence, severity, and cost of occupational accidents, injuries, and illnesses. They often provide consolidated training opportunities and provide for an exchange of expertise between safety and health professionals from the participating agencies. Field installations are encouraged to participate in these councils.

## CHAPTER 6: EMPLOYEE RIGHTS AND RESPONSIBILITIES

### 6.1 GENERAL

Employees are entitled to a safe and healthful workplace and are encouraged to participate in the development and operation of the NASA Occupational Safety and Health Programs.

### 6.2 EMPLOYEE RIGHTS

Employees or their designated representatives have the following rights in connection with the NASA Occupational Safety and Health Programs:

1. Access to documents describing NASA's Occupational Safety and Health Programs including the Act, applicable Executive Orders, Federal regulations, and standards.
2. Access to their medical and exposure records in accordance with applicable Federal regulations (29 CFR Part 1910.20), NASA Privacy Act regulations (NMI 1382.17), and the Privacy Act.
3. Access to the log and summary of occupational injuries and illnesses, OSHA Form 100F or its equivalent.
4. Participation (by designated representative(s) of employees) in safety and/or health inspections of the workplaces without charge to leave.
5. NASA-sponsored medical examinations at no cost when their work involves potential exposure to a toxic or hazardous substance.
6. Safety and health training, the level thereof to be in accordance with the degree of hazard associated with their occupation.
7. Representation on installation safety and health committees.
8. Access to proposed NASA OSH standards to provide comments.
9. Refusal to perform an assigned task because of a reasonable belief that, under the circumstances the task poses an imminent risk of death or serious bodily harm coupled with a reasonable belief that there is insufficient time to seek effective redress through normal hazard reporting and abatement procedures. When imminent danger conditions exist, provisions must be made for removal of employees.

### 6.3 EMPLOYEE RESPONSIBILITIES

Employees are responsible for:

1. Complying with safety and health standards, rules, regulations, and guidelines issued by NASA.

2. Using established procedures to report and resolve suspected safety or health hazards.
3. Obtaining necessary emergency medical care as the result of an occupational injury or illness.
4. Promptly reporting occupational injuries or illnesses in accordance with established procedures.
5. Cooperating with safety and health personnel during inspections, surveys, and investigations.
6. Utilizing protective equipment when prescribed and/or required by safety or health standards, good work practices, or when directed by supervisors.

#### 6.4 FREEDOM FROM REPRISAL

No employee shall be subject to restraint, interference, coercion, discrimination, or reprisal for filing a report of an unsafe or unhealthful working condition, participation in the activities of the agency's Occupational Safety and Health Programs, or any right afforded by Section 19 of the Act, Executive Order 12196, 29 CFR Part 1960, or those enumerated in paragraph 6.2.

#### 6.5 RESOLUTION OF COMPLAINTS

1. Where an employee has made a report of a suspected unsafe or unhealthful condition to his/her supervisor and is dissatisfied with the abatement action taken, the following appeal route (in order of preference) is available:
  - a. Installation Safety/Health Official(s), as appropriate.
  - b. Installation Director or Manager.
  - c. Director of Safety or Director, NASA Occupational Health Office, whichever is appropriate.
  - d. Office of Federal Agency Safety and Health Programs--OSHA/DOL.
2. Complaints or grievances may also be registered through the NASA grievance procedures, through those procedures contained in agreements negotiated with recognized labor organizations, or to the NASA Office of Inspector General.

## CHAPTER 7: SAFETY AND HEALTH TRAINING

### 7.1 GOAL

NASA is committed to the development and implementation of a comprehensive program of occupational safety and health training and instruction. The purpose is to assure the highest practical skill levels in its safety professionals, safe work habits of employees involved in potentially hazardous operations, and sufficient information to enable management officials and supervisors to recognize their responsibilities under the Occupational Safety and Health Act and the NASA Safety and Health Programs.

### 7.2 LEGAL REQUIREMENTS

Executive Order 12196 and Subpart H of 29 CFR Part 1960 mandate that NASA establish a training program for specific employee categories and give broad guidelines for training emphasis.

### 7.3 NASA SAFETY AND HEALTH TRAINING GUIDELINES

Specific guidelines to aid in the formulation, implementation, and evaluation of the Center's Training Program can be found in the NASA Safety and Health Training Manual (soon to be published).

### 7.4 TRAINING COORDINATORS

Reflecting the autonomous nature of the NASA Centers, it will be the responsibility of the Center Safety Director/Official and the Occupational Health Official, with assistance, as needed, from the Center Training and Personnel Development Branch to coordinate the respective training needs and to oversee the functioning of the training effort. Training activities shall include:

1. Identification of training needs.
2. Budget input for training requirements.
3. Development of training courses.
4. Ensuring training records reflect employee safety and health training.
5. Liaison with the Center Training Office, the NASA Safety Office and the NASA Occupational Health Office.

## 7.5 PERSONNEL TO BE TRAINED

Appropriate instruction and job-related safety and health training are required for the following employees:

1. Top management officials.
2. Supervisors.
3. Safety and health professionals.
4. Fire fighters and emergency medical technicians.
5. Collateral duty safety and health personnel and Safety and Health Committee members.
6. Employee representatives.
7. Other employees who are occupationally exposed to potentially hazardous conditions.

## 7.6 METHODOLOGY

The methods used to achieve the stated goals of the Training Program should include introductory and specialized courses, literature, laboratory experience, visual aids, field study, and other formal learning experiences that may be deemed appropriate.

## 7.7 CONTENT

The training program should be structured so as to ensure, as a minimum, that the following information be provided to employees as needed:

1. Essential features of the Occupational Safety and Health Act.
2. Executive Order No. 12196.
3. The requirements of 29 CFR Part 1960, "Basic Program Elements for Federal Employee Occupational Safety and Health Programs."
4. NASA's Occupational Safety and Health Programs.
5. Available training opportunities.
6. Specific job-related information such as:
  - a. Hazards of the job task.
  - b. Safe and healthful work practices.
  - c. Hazards of the work environment.

- d. Necessity for and proper use and care of personal protective equipment.
- e. Pertinent emergency procedures.
- f. Methods for reporting of occupational injuries, illnesses, and hazardous conditions.
- g. Safety and health standards applicable to the work environment.

## 7.8 FUNDING

Efforts shall be made to ensure that adequate funds are allocated for training needs. This effort will involve requests for training funds for the Safety and Health Office(s) during annual budget calls and/or providing the Center Training Office with sufficient and timely information as to the anticipated safety and health training requirements for the upcoming fiscal year.

## 7.9 ROLE OF HEADQUARTERS SAFETY AND OCCUPATIONAL HEALTH OFFICES

The role of the Safety Division and the NASA Occupational Health Office will be to assist the Centers in assuring that the requirements of 29 CFR Part 1960 are fully complied with, and that a degree of standardization exists from Center to Center to realize uniformity of training emphasis within individual employee categories. In addition, the Safety Division and the NASA Occupational Health Office will act as a clearinghouse of information regarding available training courses and materials, serve as the liaison with the OSHA Training Institute, and develop, in conjunction with the NASA Office of Development, training courses suited to specific agencywide needs.

## CHAPTER 8: RECORDKEEPING AND REPORTING REQUIREMENTS

### 8.1 INTERNAL

Policy and guidance for reporting and recordkeeping for all classes of mishaps are found in Chapter 9 of NHB 1700.1(VI), as revised.

### 8.2 EXTERNAL

Field installations will provide required information for the following:

1. Annual Summary—Occupational Injuries/Illnesses: OSHA Form 102F and 102FF summarizing the calendar year information will be forwarded to the NASA Safety Office within 30 days following the end of the calendar year.
2. NASA's Annual Report to the Secretary of Labor: The format for this report will be forwarded to each installation as soon as it is received from OSHA/DOL. Field installations and certain Headquarters' offices will complete and return the information to the Safety Division. Preparation of the agencywide report, (NASA Report Control No. 10-SMIS-00609) will be a joint responsibility of the Safety Division and the NASA Occupational Health Office.
3. Information relative to safety and health training will be required for internal planning and evaluation as well as to meet external reporting requirements.

## CHAPTER 9: EVALUATION OF OCCUPATIONAL SAFETY AND HEALTH PROGRAMS

### 9.1 PROGRAM OVERSIGHT

1. Surveys of field installation safety and health programs by responsible Headquarters' functional offices will be conducted on at least a biennial basis. These reviews will provide the basis for input into the Center Performance Review process.
2. Surveys will include qualitative assessments of the extent to which the installations' safety and health programs are:
  - a. Consistent with NASA policy and procedures.
  - b. Developed in accordance with Executive Order 12196 and provisions of 29 CFR Part 1960.
  - c. Implemented effectively by the installation.
  - d. Consistent with recognized good practice.

### 9.2 INSTALLATION SELF EVALUATIONS

Installations will perform third-party self surveys of their safety and health programs and submit results of those efforts to the Safety Division and the NASA Occupational Health Office. These surveys will be conducted during intervals between Headquarters surveys.

### 9.3 PROGRAM EVALUATION BY OSHA/DOL

OSHA is directed by Executive Order 12196 to conduct evaluations of all Federal agency safety and health programs. Details of these evaluation procedures can be found in 29 CFR 1960.80. This program evaluation will be coordinated with the Safety Division and the NASA Occupational Health Office who will, in turn, notify other offices and field installations which are to be involved in the evaluation.


APPENDIX A



## Notice of Unsafe or Unhealthful Condition

1. INSTALLATION WSTF/JSC		2. DATE ISSUED (Mo., day, year) January 4, 1981	
3. LOCATION Room No. 124, Building No. 1250			
4. DESCRIPTION OF CONDITION (Use reverse if additional space is needed)			
<p>This area lacks an eyewash. In the event corrosive materials enter the eyes of personnel, serious injury would occur unless the eyes are drenched or flushed immediately. Substandard facilities are located 100 feet away in the toilet.</p> <p align="center" style="font-size: 48px; opacity: 0.3; transform: rotate(-10deg);">SAMPLE</p>			
5. STANDARD OR PROCEDURE VIOLATED 29 CFR 1910.151(c)			
6. DATE CONDITION IDENTIFIED (Mo., day, year) January 1, 1981		7. INSPECTOR John Doe	
8. TELEPHONE NO. 876-1234			
9. ABATEMENT PLAN DEVELOPED <input checked="" type="checkbox"/> a. YES (If "Yes," enter number) <input type="checkbox"/> b. NO		c. NO. JSC-81-23	
		10. CONDITION TO BE ABATED (Mo., day, year) March 1, 1981	
11. INTERIM SAFEGUARDS			
<p>Use of safety goggles by all affected employees. Additional safety instruction to workers regarding eye hazards.</p>			

APPENDIX B

		<h2 style="margin: 0;">Safety and Health Hazard Abatement Plan</h2>									
1. TITLE  PORTABLE EYEWASH						2. ABATEMENT NO.					
						J	S	C	8	1	
3. INSTALLATION/PROGRAM OFFICE  WSTF/JSC/N					4. BUILDING/LOCATION  Room No. 124, Bldg. No. 1250						
5. HAZARD DESCRIPTION  This area lacks an eyewash. In the event corrosive materials enter the eyes of personnel, serious injury would occur unless the eyes are drenched or flushed immediately.											
6. STANDARD VIOLATED  29 CFR 1910.151(c)								7. RISK CODE  2			
8. PROGRAM IMPACT  A NASA employee could receive serious eye injuries. In the event of an injury the employee would have to travel over 100 feet to reach standard facilities located in a toilet. The installation of the eyewash would have no adverse impact and would provide the benefit of increased personnel safety.											
9. CORRECTIVE ACTION REQUIRED  Install one portable eyewash located on the north wall of Room No. 124.											
10. ESTIMATED COST  \$700.				11. FUND SOURCE  R&PM:FS-3, Operation of Installation				12. TARGET DATE  3-1-81			
13. REASON FOR DELAY  Device is unavailable locally and must be ordered from the manufacturer.											
14. INTERIM PROTECTION  Use of safety goggles. Additional safety instruction to workers regarding eye hazards.											
15. ACTION OFFICER ▶		a. TYPED NAME AND TITLE  JOHN DOE Safety Specialist				b. SIGNATURE			c. DATE  1-1-81		
CONCURRENCES											
16. SAFETY/HEALTH DIRECTOR ▶		a. SIGNATURE				b. DATE  1-2-81					
17. BUILDINGS MANAGER/F.O.M. ▶		a. SIGNATURE				b. DATE  1-3-81					
18. FINANCE OFFICER ▶		a. SIGNATURE				b. DATE  1-4-81					